



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,265	08/16/2001	Wolfgang Neuberger	BJA262A	2710

7590 10/07/2002

BOLESH J. SKUTNIK PhD, JD
515 Shaker Road
East Longmeadow, MA 01028

EXAMINER

CONLEY, SEAN E

ART UNIT	PAPER NUMBER
----------	--------------

1744

DATE MAILED: 10/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,265

Applicant(s)

NEUBERGER, WOLFGANG

Examiner

Sean E Conley

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 is/are allowed.
- 6) ☒ Claim(s) 1-10, 14 is/are rejected.
- 7) ☒ Claim(s) 11 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 6-8, 10, and 14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. More specifically, claims 6 and 8 recite the phrase "linking mechanism" and claims 7, 10, and 14 recite the phrase "targeting molecule" which are not enabled by the specification.

The specification does not give any guidance as to the specific examples of "linking mechanisms" or "targeting molecules" that would be used in the instant claimed process. In *In re Wands*, 8 USPQ2d 1400 (1988), factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. § 112, first paragraph, have been described. They are:

1. the nature of the invention,
2. the state of the prior art,
3. the predictability or lack thereof in the art,
4. the amount of direction or guidance present,
5. the presence or absence of working examples,
6. the breadth of the claims,
7. the quantity of experimentation needed, and
8. the level of the skill in the art.

Art Unit: 1744

In the instant case, Applicants are claiming a method of obtaining surfaces with antimicrobial properties. The nature of the photosensitizing arts is that it involves the use of light activated chemicals (photosensitizers) to sterilize or disinfect articles and objects in order to destroy bacteria that are considered harmful and undesirable. There is no absolute predictability even in view of the seemingly high level of skill in the art. The instant specification does not give any guidance as to the specific examples of "linking mechanisms" or "targeting molecules" that would be used in the instant claimed process and they are not considered terms of the art. In order to practice the claimed invention, one skilled in the art would have to speculate which "linking mechanisms" and "targeting molecules" could be used to adhere or bond the photosensitizer molecules to the surface being treated and further attract the photosensitizer molecules to the microbes and bacteria that are to be destroyed. The number of possible chemicals that could be considered "linking mechanisms" and "targeting molecules" embraced by the claims would impose undue experimentation on the skilled art worker.

Therefore, the broad terminology "linking mechanism" and "targeting molecule" is not enabled because the metes and bounds of the possible chemicals that could be used to adhere or bond the photosensitizer molecules to the surface being treated and further attract the photosensitizer molecules to the microbes to be destroyed cannot be ascertained.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 and 9 are rejected under 35 U.S.C. 102(a) as being anticipated by Curry et al. (WO 01/34211 A2).

Curry et al. disclose a method and apparatus for using photosensitizers and light to treat chemical and/or biological contaminants on surfaces and in aerosol clouds. The method comprises the step of first spraying the surface to be treated with a photosensitizer aerosol spray. Then, the photosensitized contaminates and pathogens on the surface are illuminated with ultraviolet (UV) light (environmental condition) of sufficient intensity to cause photochemical destruction or deactivation of the contaminants (see page 4, lines 19-27). Furthermore, it is disclosed that the photosensitizer spray solution may additionally include surfactants, liquid carrier particles, or diluents and may also be electrostatically charged to increase surface adherence (see page 7, line 8 to page 10, line 31).

Allowable Subject Matter

5. Claim 13 is allowed.
6. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art to the applicants invention as presented in claim 13 is the reference WO 93/00815 to Bonnett et al.

Bonnett discloses a photobacterial article that can take the form of textile articles such as cloths, wipes, wound dressings, bed linen and bandages. The articles may take the form of polymer laminates with a photobacterial surface, in which one or more of the layers of the laminate contains or consists of a polymer composition which includes a photosensitizer. Preferably at least one surface layer of the laminate contains or consists of a polymer composition which includes a photosensitizer (see page 8). However, the reference does not teach coating the upper surface of each layer with a photosensitizer containing formulation wherein each layer protects the preceding layer from light and oxygen.

7. Claims 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 1744

WO 93/00815 to Bonnett et al. published January 21, 1993. This reference is considered relevant to claims 1-3, 5 and 9 (see page 3, line 14 to page 4, line 5).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Conley, whose telephone number is (703) 305-2430. The examiner can normally be reached on Monday-Friday 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Robert Warden, can be reached at (703) 308-2920. The Unofficial fax phone number for this group is (703) 305-7719. The Official fax phone number for this Group is (703) 872-9310.

When filing a FAX in Technology Center 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of the application. This will expedite the processing of your papers.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [robert.warden@uspto.gov]. All Internet e-mail communications will be made of record in the application file. PTO employees will not communicate with applicant via internet e-mail where sensitive data will be exchanged or where there exists a possibility that sensitive

Art Unit: 1744

data could be identified unless there is of record express waiver of the confidentiality requirements under 35 U.S.C. 122 by the applicant. See the Interim Internet Usage Policy published by the Patent and Trademark Office Official Gazette on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist, whose telephone number is (703) 308-0661.

SEC

October 2, 2002



ROBERT J. WARDEN, SR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700